



## INSTRUCTIONAL COVER SHEET

PROGRAM TITLE OPERATIONS TRAINING

COURSE TITLE JOB PERFORMANCE MEASURE

LESSON TITLE REACTOR FEED PUMP 'A' QUICK RESTART (SIM)

LESSON LENGTH .5 HRS MAXIMUM STUDENTS 1

### INSTRUCTIONAL MATERIALS INCLUDED

Lesson Plan PQD Code	_____	Rev. No.	_____
Simulator Guide PQD Code	_____	Rev. No.	_____
JPM PQD Code	<u>LR000131</u>	Rev. No.	<u>6</u>
Exam PQD Code	_____	Rev. No.	_____

DIVISION TITLE Nuclear Training

DEPARTMENT Operations Training

PREPARED BY STAFF DATE 1995

REVISED BY Ron Hayden DATE 6/11/09

TECHNICAL REVIEW BY \_\_\_\_\_ DATE \_\_\_\_\_

INSTRUCTIONAL REVIEW BY \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

Operations Training Manager

Verify materials current IAW SWP-TQS-01 prior to use.

## MINOR REVISION RECORD

Minor Rev Number	Description of Revision	Affected Pages	Entered By	Effective Date	Manager Approval

### JPM SETUP

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**Simulator ICs; Malfunctions; Triggers; Overrides:**

Post scram IC where both RFP’s have tripped at 54.5” and current RPV level will allow the RFP to be reset (LT +54.5”)

**Special Setup Instructions:**

None

**JPM Instructions:**

Verify Current Procedure against JPM and ensure procedure critical steps match if procedure is different revision than listed in JPM. If critical steps have changed, the JPM should be revised.

The evaluator and student shall use current procedure. The evaluator should mark off steps as they are completed, note comments, and transfer the comments to the “Results of JPM” page.

**Tools/Equipment:** None

**Safety Items:** None

**Task Number:** RO-0371

**Validation Time:** 15 Minutes

**Prerequisite Training:** None

**Time Critical:** No

**PPM Reference:** SOP-RFW-RESTART-QC Rev. 2

**Location:** Simulator

**NUREG 1123 Ref:** 259001A4.02 (3.9/3.7)

**Performance Method:** Perform

## JPM CHECKLIST

<b>PROCEDURE VALIDATION</b>	Procedure copies for evaluator and student, if procedure revision is different from that listed on JPM, critical tasks reverified. Evaluator copy may be used for marking step completion, and comments.
<b>INITIAL CONDITIONS:</b>	A reactor scram was inserted as part of a controlled shutdown. RPV level increased to GT 54.5" and both RFP's tripped.
<b>INITIATING CUE:</b>	You have been directed by the CRS to perform a quick restart of the "A" RFW Pump using SOP-RFT-RESTART-QC. Inform the CRS when the A RFW pump's speed is GT 800 rpm and RFW-P-1A has been transferred to MDEM.

\* Items are Critical Steps

Comments	Element	Standard	Sat/Unsat
<b>RECORD START TIME: _____</b>			
<b>Step 2.1.1</b>	If desired, then transfer RPV level control to RFW-FCV-10A/10B per SOP-RFW-FCV-QC concurrently with this procedure	N/A	N/A
<b>Step 2.12</b>	If performing this section following a reactor scram, then verify RFW-V-112A and RFW-V-112B have started to close	Takes control switch for RFW-V-112A and RFW-V-112B momentarily to the closed position and observes dual light indication	S / U *
<b>Step 2.13</b>	Verify MSIVs are open (H13-P601)	Observes all MSIV red lights are lit and green lights are out on P601	S / U
<b>Step 2.14</b>	Verify at least two high level seal ins are reset (H13-P603)	Depresses at least two of the High Level Seal In P/B's on P603	S / U *
PROCEDURE NOTE: RFT-COMP-1 and RFT-COMP-2 are redundant units, either screen will allow operation of the Reactor Feed Turbine control system.			

\* Items are Critical Steps

Comments	Element	Standard	Sat/Unsat
<b>Step 2.15</b>	Verify RFW-P-1A(B) in MDVP mode at 0% using RFT-COMP-1 or RFT-COMP-2 (Pump Control Screen) as follows (H13-P840): a. Select MDVP b. Select YES c. If required, then DEPRESS the DOWN arrow for RFW-P-1A(B) using RFT-COMP-1 or RFT-COMP-2 for 0% output (Pump Control Screen) (H13-P840)	Verifies: a. Selects MDVP on either RFT-COMP-1 or RFT-COMP-2 b. Selects YES c. If required, then DEPRESS the DOWN arrow for RFW-P-1A(B) using RFT-COMP-1 or RFT-COMP-2 for 0% output	S / U S / U S / U
<b>Step 2.16</b>	Hold the trip/reset switch to reset until RFW-P-1A(B) HP and LP stop valves indicate full open (H13-P840)	Places the Turbine Emergency Trip/Reset switch to the Reset position until the LP and HP Stop valves red light is on and the green light is off, then release the Trip/Reset switch	S / U *
PROCEDURE NOTE: If the Main Turbine is tripped, the RFP Turbine will not roll until Main Steam is admitted at approximately 60% GV position.			
<b>Step 2.17</b>	Raise Turbine speed as follows: a. If the Main Turbine is not tripped.....	Does not perform this step as MT is tripped	S / U
	b. If the Main Turbine is tripped, then perform the following: <ul style="list-style-type: none"> <li>• Slowly raise RFW-P-1A(B) GV position using RFT-COMP-1 or RFT-COMP-2</li> <li>• Monitor RFW-P-1A(B) speed on RFT-COMP-1 or RFW-COMP-2 as GV position increases GT 60% GV position</li> </ul>	In MDVP, depresses increase pushbutton as necessary to raise GV position to GT 60% and then to increase turbine speed to raise GT 800 rpm	S / U *

\* Items are Critical Steps

Comments	Element	Standard	Sat/Unsat
<b>Step 2.18</b>	Transfer RFW-P-1A(B) to MDEM using RFT-COMP-1 or RFT-COMP-2 as soon as practical (GT 800 rpm) (Pump Control Screen) as follows (H13-P840): a. Select MDEM b. Select Yes	With speed GT 800 rpm, transfers RFW-P-1A to MDEM by: a. depressing the MDEM pushbutton b. depresses Yes pushbutton	S / U *  S / U *
<b>Termination Criteria: Student informs CRS that A RFW pumps speed is GT 800 rpm and the speed controller has been transferred to MDEM</b>			
<b>RECORD TERMINATION TIME: _____</b>			
<b>Transfer to “Results of JPM” page the following information: Procedures validated prior to use; Comments from marked up evaluator’s procedure copy; Unsatisfactory critical tasks; Total JPM time; Marked Up procedure and remaining JPM pages may be discarded.</b>			



## STUDENT JPM INFORMATION CARD

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### Initial Conditions:

A reactor scram was inserted as part of a controlled shutdown

RPV level increased to GT 54.5" and both RFP's tripped

### Cue:

**You have been directed by the CRS to perform a quick restart of the "A" RFW Pump using SOP-RFT-RESTART-QC**

**Inform the CRS when the A RFW pump's speed is GT 800 rpm and RFW-P-1A has been transferred to MDEM**